

BIG MONEY IN CHINA

Its Vast Coal and Iron Fields to Be Opened to the World.

FRANK G. CARPENTER.

(Copyrighted, 1900, by Frank G. Carpenter.)

Shanghai, Oct. 3, 1900.—The mineral resources of China will form an important consideration in the payment of the war indemnity. The Chinese will not stand an increase of taxation, the reform of the corrupt officials is a work of years, and the most of the money demanded will probably have to be secured by concessions. There is no doubt but China has enough minerals to pay its war debt a thousand times over. It has long been considered the richest coal country in the world, and the railroad surveyors have discovered coal and iron almost everywhere. The Germans have found diamonds in Shantung, and mines of gold and silver are being operated in several places at a profit. Still, no one knows just what China contains, and the powers should undoubtedly take advantage of the situation and demand a careful geological survey of the empire. Such a survey would be invaluable to the scientific and industrial world.

CHINA'S MINERAL WEALTH.

Some of the biggest fortunes of the next twenty-five years will come from the development of China's mines. The country is a very cave of Aladdin, which needs only the geni of modern progress to display it to mankind. Let me give you a faint idea of its possibilities. I have gathered information about it from all available sources. I find much in the library of the Shanghai club, which has papers on China which are unobtainable elsewhere, and I have much from the mouths of Chinese officials and travelers.

Some of the best geological work ever done out here was by Raphael Pumpelly, a Harvard professor, who was employed by the Chinese government as a mining engineer. He spent five years in making a tour around the world, and much of this time was devoted to China. More recent investigations are those of Baron Richtofen, and lastly of the engineers and surveyors of the railroad syndicates which have concessions from the government.

CHINA'S IMMENSE COAL FIELDS.

First take the two great industrial metals, coal and iron. China has one of the best labor populations of the globe, and in this age of steel, with coal, iron and modern machinery, it will be a factor in the world's manufactures. Pumpelly says it has the greatest coal fields on earth. There is coal and iron in every province, and several of the provinces are as rich as Pennsylvania in these minerals. Not far west of Peking there is a great coal bed which extends along the frontiers of Chihli, through the province of Shanai, and thence down through Hunan and Hupeh, into another vast coal and iron district in Hunan on the south side of the Yangtze. There are important coal fields in eight of the provinces below

The Richest Coal Fields of the Globe—Where They Are and What they Are—The Peking Syndicate, Which Has Already Mortgaged the Pennsylvania of China—An Anglo-Italian Syndicate Which Has \$20,000,000 Capital—the Coal Fields of the Yangtze Valley and the Rich Mineral Regions of Yunnan—China's Copper Deposits and Its Possible Gold and Silver Concessions—Fortunes in Building Stones and How One Yankee Will Make Chinese Tombstones for the American Market—Diamonds, Sapphires and Opals—How Mining is Done and How Concessions Can Be Secured.



"They Make Magnificent Monuments."

the Yangtze Kiang, and especially in the province of Yunnan.

Yunnan is about the size of California. It is almost as big as the combined areas of Michigan and Wisconsin. It lies right on the border of Burma and will be reached by the railroad which is projected from Burma to China. The Yangtze river forms a part of its northern boundary, and through it the coal can have access to many thousand miles of water ways reaching hundreds of millions of people.

Yunnan has a population of more than eleven millions and with its coal, iron, copper and other minerals it will probably be a great industrial and manufacturing center. The State has already a trade of two and one-half million dollars a year, a part of which is coal.

The mines have been worked for ages. The province is mountainous and the coal, both bituminous and anthracite, lies on the edges of a great plateau in

the center of Yunnan, at an elevation of a mile above the sea. Other beds are near the Yangtze and Siang rivers. They are said to be easily worked.

COAL IN GERMAN CHINA.

Shantung, which is claimed by the Germans, has rich coal fields. The mines begin within forty or fifty miles of Kiaochow bay, and extend through the mountainous regions back of it. Our consul at Chefoo recently received a report made upon some of them by a foreign engineer. He reports a vein of coal four feet thick in Shantung county, which he says is for sale. It is close to another mine which is now being operated at a profit. Near this same mine there is a bed five feet three inches thick, which could be worked on shares, and three miles another which has just been sold for \$4,500 to the Germans. One of the mines of this region is already turning out 1,000 tons of coal every day, and another has produced coal to the amount of \$100,000.

There are other regions in Shantung that are much better than this, some of which the Chinese have been working for ages. In the mountains just back of Kiaochow there are thousands of Chinese mining coal. They work twelve hours a day for from six to ten cents. The mining is primitive. The coal is dug out with picks and carried from the mine in raw-hide sacks on the backs of men. It is then put into baskets or wheelbarrows, from one to four baskets being fastened on the shelves which jut out on each side of the wheel.

It is such barrows, pulled and pushed by men, that the coal is taken to the market. Some of the wheelbarrows have sails. Only little can be carried on a barrow, and the freight rates are so heavy that it costs \$6 to bring a ton from the mines to Kiaochow, a distance of seventy miles. Coal worth \$2.25 a ton at the mines sells for \$7 a ton a few miles away.

The Germans are now building a railroad to these mines. The road-bed is almost completed and the cars are on the way. As soon as conditions become settled it will be put into operation and this coal will have an outlet to the sea.

RICH MINES ALONG THE YANGTZE.

The Yangtze Kiang is one of the most wonderful rivers of the world. It is over 3,000 miles long and it almost bisects China. The biggest ocean steamers can sail up it into China as far as New York is distant from Chicago, and with its tributaries it furnishes more than 12,000 miles of navigable waterways. There are vast coal deposits, which could easily be made accessible to the Yangtze Kiang. This is so of the Shanai coal beds, which I describe further on. They are the greatest in China, and a short railway will bring them to the Han river, which flows into the Yangtze at Hankow. The mines of Yunnan are not far from the upper Yangtze, and there are coal beds all along the Yangtze valley. I am told they are to be found near Nanking, Hankow, and from Chinkiang to the borders of Tibet.

Mrs. Bishop visited a coal mine in Shantung on the Yangtze, about 2,000 miles back from the sea. She says the seam was four feet thick and was of a hard bituminous nature. It was reached by a tunnel six feet long, in which was a wooden tramway, and the coal was carried out in baskets on wheels. The mine was worked day and night in shifts of twelve hours, the miners being paid 14 cents a day, with an allowance of three meals of rice. The coal costs about 40 cents a ton in labor, and a short distance away from the mines it was selling for \$1.75 a ton. In the upper Yangtze, near Suchau, there are coal mines in the side of a cliff, which have been opened by galleries hung from the top with ropes of plaited bamboo. The miners bring the coal out upon the galleries and thence slide it down in baskets, into the boats on the Yangtze.

There are thousands of abandoned mines both along the Yangtze and in other parts of China. One of the greatest troubles is water. The Chinese have no good pumps, and as soon as the water comes into the mines, they leave them. Shafts are seldom put down more than 200 feet.

In Shantung the experiment of trying modern pumps was attempted. The pumps were ordered from England and were brought into the coal regions at great cost. They were allowed to lie there and rust until thieves had stolen many of the parts. Then an engineer was brought from Shanghai to put them up, but was unable to do so.

The old American firm of Russell & Co., when they owned the steamers on the Yangtze, got all their coal from Kukiang. There was an explosion from fire damp, and the Chinese thought the devil had gotten into the mine, and it is shut to this day.

HOW THE WATER DEMON FLOODS A MINE.

Another instance of Chinese superstition occurred in one of the Kaiping mines, which lies near Tong Shan on the Tien Tsin, Shanhaikwen railway. These mines are the greatest in China. They employ about 10,000 men, and have an output of 1,500 tons of coal a day. I have visited them, and can say that they are not up to date in their machinery and modern methods of working.

The mines at Kaiping are operated by Chinese under foreign supervision. Not long ago a new mining engineer from London was brought to take charge of them. He went through the mines and was surprised to find a large block of the best coal in the center of one of them. He asked why it had not been taken out, and was told that it was the home of a water demon. Upon inquiry he found that the former engineer had left it partly to please the Chinese directors and partly because he thought there might be something in the theory.

The new man said: "Hans the water demon. Let's get out the coal." The Chinese still protested, but as he insisted, they put in a blast and fired it. When the wall of coal fell, a great stream rushed in, flooding the mine and shutting up access to many chambers. Since then the water in that mine has not been controlled, although the costliest pumps have been purchased. The block of coal was in reality a great pipe in which a subterranean river flowed through the mine. The coal had been left intact until the engineer ordered it dynamited. The Chinese must have suspected the river. At least they looked upon it as holding a demon.

AS GOOD AS PENNSYLVANIA.

If you will take your map of China and look at the province lying west of Chihli, bordered on the north by Mongolia and on the west by the winding Hoangho, you will see the Pennsylvania of the Chinese empire. It is the province of Shanai, which is said to contain the greatest and richest coal area of the globe. It is just about as big as Illinois, and it has four times as many people. It is of much the same shape as Illinois, and like Illinois has a great river running along its western and southern sides. It contains iron and limestone in vast quantities, and in the future it will probably be the greatest manufacturing and steel-making section of the world.

This province has been recently visited by Noah Drake, of the Imperial Chinese University of Tien Tsin. He speaks of the anthracite area as greater than that of Pennsylvania and estimates that it contains more than six hundred million tons of coal. There is quite as much bituminous as anthracite, and the deposits of both kinds are beyond description wonderful.

Shanai is a mountainous country with a great tableland in its center rising more than a mile above the sea. This tableland is made of sandstone, shale and conglomerate of as many different

colors as the cliffs of the Colorado canyon. The top of the plateau is covered with a rich loess deposit, a bed of clay or dirt from five hundred to a thousand feet deep, which is gulleyed with water courses. Under the dirt there are vast deposits of coal and iron, exposed by the water. There is a great deal of coal about the edges of the plateau and in the mountains. It lies at an elevation of about twenty-five hundred feet, in horizontal beds, and is to be seen wherever the rivers have cut through.

The anthracite seams are unbroken over an area of more than thirteen thousand square miles. They are of a thickness from twenty-five to fifty feet, and of an average of forty feet. The anthracite gives from 8 to 10 per cent of ash, and it is but slightly impregnated with sulphur.

The bituminous coal fields of Shanai have an area of 12,000 square miles, or as great as that of Massachusetts and Connecticut. They lie in the western part of the province not far from the Yellow river, and are spotted here and there with deposits of petroleum and limestone and rich iron ore.

CONCESSION WORTH MILLIONS.

A part of this rich territory has been grabbed up by some big capitalists, under the name of the Peking Syndicate. These men have a grant from the emperor and have formed out the development of their mines to the Anglo-Italian syndicate, which claims a capital of \$20,000,000.

The concessions of the Peking syndicate include the rights to all the petroleum of Shanai, and to a large part of its coal and iron. Prof. Noah Drake says they have one bed of coal which contains more than 3,000,000 tons of fine anthracite. The bed is twenty-two feet thick on the average. They have other deposits which are even more valuable. Their concessions lie in central and southern Shanai and extend over Goto Honan and the mountainous regions below the Yellow river, comprising a territory greater than the whole of New England and forming perhaps the richest coal concessions ever made.

CHINA'S RICH GOLD MINES.

I find a general belief here that China is rich in the precious metals, and the geological surveys so far made point to the same conclusion. The Germans say that there is plenty of gold in Shantung and that the Chinese there are washing it out of the streams. There is gold in Yunnan, in southern China, and in different parts of Manchuria. The Moho Mining company is working placer deposits not far from Mukden; it has already exported something like a million dollars' worth of course gold. There is gold in Yunnan, in southwestern China. There are placer deposits along the Han river and also along the western highlands on the borders of Tibet.

Pumpelly found silver in sixty-three different localities, and lead in twenty-four. In Yunnan the silver is mixed with lead. The province has also tin, zinc and iron. Lead is also found in Fukien, opposite the Island of Formosa, and in Kwantung, not a great distance from Canton.

FORTUNES IN COPPER.

The big dividends now being paid on copper mines in the United States may at some time be paralleled in China. The copper ore is rich, and it is said to exist in every province. It is being mined in Shanai, where the emperor has fled, and also in Kweichow, below the Yangtze. Yunnan has a white copper which is mixed with tin, iron, nickel and lead, and it has copper mixed with silver, tin and lead. The Yunnan copper mines are now worked by native companies, who have been paying about a cent a pound royalty to the government, and four times that amount to the owners of the mines.

MONEY IN STONES.

I know several Americans who are studying the stones of China with re-

gard to the American market. I met a gravestone man from Seattle at Hang-kow to weeks ago. He had been traveling through the province of Kwang Tung looking up granites and marbles. He told me he expected to establish a business in Canton for the making and exporting of tombstones and fine building stones to the United States. He says the granites and marbles of China are as fine, if not finer, than ours, and that our workmen are not so skillful as the Chinese. He believes he can manufacture here ten times as cheaply as in the United States, and says the high freight is nothing in comparison. This man is right about the artistic ability of the Chinese in stone cutting. They make magnificent monuments. They cut turtles and memorials of various kinds out of marbles and their work in the Ming Tombs and in some of the great bridges near Peking is as fine as that of any sculptor. It seems odd to think of the Confucian Chinese cutting out tombstones for the Christian cemeteries of the United States, but this is a possibility.

HOW TO GET MINES IN CHINA.

The chief money to be made here is in the industrial metals. I am told there are rubies, amethysts, sapphires, diamonds and opals in different localities, but these are nothing in comparison with the value of the copper, coal and iron. If concessions are granted and the country made safe there will be an influx of foreign prospectors as soon as the treaty of peace is settled. There will probably be many Americans, and our government should see that the mining regulations are as strict by treaty that there can be no dispute as to title and the working of the mines.

At present China has a bureau of mines and railways. It has certain laws as to foreigners who wish to open up such territory, but at present these laws are altogether in favor of the Chinese.

I have before me the concession of the Peking syndicate, which went into operation two years ago. It provides that the property and all improvements shall revert to the government after sixty years, and that the company shall in the meantime pay the government 5 per cent of all its profits, with the exception of 4 per cent on its capital stock and 10 per cent for a sinking fund to repay the capital invested. In other words, the syndicate gets a 9 per cent dividend and a 10 per cent sinking fund before anything else is paid. Of the balance it receives 75 per cent and this is to go on for sixty years.

The government also receives a tax of 5 per cent on the cost of working the mines and double the usual tax on the government lands held by the concession. Similar regulations are made as to all companies operating in China.

According to the present law at least three-tenths of the stock of every foreign mining concession must be owned by the Chinese. It is impossible to get a concession where all the capital is foreign. In no case will the government be responsible for losses of any kind.

All grants for such concessions must be sanctioned by the bureau of mines, and promoters are required to show proof of having capital before their applications will be considered. The books of all mining companies must be open to government inspection, and every such company must establish a school of mines for young Chinese mining engineers.



CHRISTMAS PHOTOGRAPHS

Our regular \$5.00 work for \$3.50 until December 1st.

Shipler & Son, Hooper Block

DID YOU SEE THE PARIS EXPOSITION?

IF NOT, Call at our office and see the Art Portfolios of the Great Show.

The Deseret News

HAS SECURED for its subscribers a MAGNIFICENT COLLECTION OF PHOTOGRAPHIC VIEWS of its Beautiful Buildings, Rare Paintings, Interesting Objects of Art, Wonderful Exhibits and Choicest Treasures, issued under the direct approval of HON. FERDINAND W. PECK, COMMISSIONER GENERAL, and the authority of and by special concession from the United States Department of Fine Arts.

CALL AT OUR OFFICE AND SEE THEM.

Read Our Offer.

CITY SUBSCRIBERS can obtain each number of the "Art Souvenir of the Paris Exposition" at the counting-room of the News for 10 cents. Each number consists of 6 separate photo-engravings with wide margins, size 14x18 inches, suitable for framing, printed on the highest grade of enameled art paper, and delivered in heavy portfolio covers. Out-of-town subscribers can obtain each number by sending 10 cents to the Art Department of the Deseret News, or \$2.00 for the series, and it will be forwarded, postpaid, on receipt of price.