MUKDEN AND THE MINES OF FUSHUN

"I crossed the world but found no devils"

—JAPANESE PROVERB

My first visit to Mukden occurred in 1923. Ten years later I could not recognize the city. Except for being "hampered by the facts," to quote Mark Twain, I could have sworn that I had never seen Mukden; for I landed in the section which the inhabitants proudly call "The New Town."

The South Manchuria Railway created it: it administers it today. It spreads from north to south and covers about fifteen hundred acres. Its wide streets are paved as smoothly as any of the show streets of New York or Chicago, and its modern equipment, including water supply and drainage, is quite the most up-to-date in the world. Travelers cannot lose sight of two imposing edifices: the Manchurian Medical College and the Mukden Hospital. They stand there bearing evidence to the Japanese aspiration to serve the public welfare. In 1929 the population of this section exceeded 46,000; it is much larger today. Naniwa-dori, which cuts straight through the New Town as Broadway cuts through the heart of Manhattan, passes by the Central Circle and out into the
foreign settlement section and connects with Hsiao Hsi Chieh, which takes the traveler into the Old Town. It is 120 feet in width, and where it meets the Circle stands the famous Yamato Hotel— where the Mayor of Mukden regaled the American Consul and myself with an American lunch.

Somehow one expects to find the Mayor of Mukden a solemn mandarin, clad in long silken robes and perching a pet bird on one finger; but the actual Mayor of Mukden belongs to the Rotary Club. Although a Chinese, he is an enthusiastic supporter of the new State, and is keenly interested in its industrial enterprises. He persuaded me to go out to Fushun, forty miles southeast on a branch railway, to see the colliery.

Here, in the largest open-cut coal mine in the world, lies a solid cake of bituminous coal ten miles long and two miles broad, varying in thickness from 420 to 300 feet. There are three open cuts, the largest being three miles long and a mile broad. It, alone, accommodates thirty miles of railway, and is now operating at a depth of 350 feet. Three times as much dirt as came out of the Panama Canal has already been removed from it.
Besides the three open cuts, there are three shafts and three slope-mines at Fushun. The deepest of the shafts could hold three Washington Monuments piled end to end.

When the Japanese took over Fushun from the Russians it had an output of three hundred tons a day. It now yields twenty thousand.

The mines were first operated by the pillar-and-stall system. In 1912 the sand-flushing system was adopted. Ten years later an improved sand-flushing system was evolved by Fushun engineers, and the so-called inclined long-wall flushing system is now used in three mines.

At the western end of the fields, extraction is difficult; the coal can be mined only by stripping off the covering material. At the big open-cut, therefore, mechanical excavators, steam and electric shovels, are employed for stripping, dynamite being also used. After the coal seam has been loosened by blasting with black powder, hand mining is employed, in addition to electric shovels.

Conveyance of the coal is mainly by means of an electric trough and electric locomotives. Endless ropes and hand-push- ing are also used.
Haulage in the shafts is performed by steam and electric hoists, and at the big cut by two "skips" with a capacity of about thirty tons each. Electric locomotives run from every dressing plant to the central sorting yard.

Every pit except one has its own dressing plant, equipped with picking apron conveyors. The coal, hoisted out through the shaft, is tipped down to the screen conveyor, where lump, nut, and fine coal are classified. The fine coal is loaded directly into freight-cars after having been dressed by hand on the conveyor.

Electric power is used for hoisting, ventilating, pumping, conveying, and dressing, except in the case of the shaft hoists and some of the fans, driven by steam. Motors are of the three-phase alternating-current induction type.

The office, hoisting room, and pumping room are lit by electricity. For miners carrying lights underground two thousand benzine safety lamps are provided, together with seventeen thousand portable electric lamps for foremen.

Two plants, with a capacity of eighty thousand kilowatts, supply power. One is
equipped with a Mond gas producer as well as the Lymn system and by-product recovery process, where low-grade coal is treated; yielding sulphate of ammonia and tar as by-products, and producing gas to be burnt in the boiler-room for further generation of electric power. The other is equipped with a pulverized-coal burner in which the perfect combustion of the coal (pulverized to hundredth-inch particles) is utilized to generate electricity.

Baron Ohkura tells in a recent number of *Contemporary Japan* how even the shale is utilized, and a low-grade shale at that. After an exhaustive study of all the processes in use in the West, a group of assiduous experts employed at the colliery evolved their own oil-extracting method, now known as the Fushun process, which forms the basis of the present shale plant with its annual output of fifty thousand tons of crude oil.

Everywhere I noted minor economy devices. "Why smoke-stacks of such huge diameter, and of stone or reinforced concrete?" "Ah, those are extra tall tanks, my dear sir, built around the smoke-stacks so as to take advantage of their support and also of their warmth—preventing freezing in
our cold winters!” “Well, if it’s so cold here, why do I see no chimneys in your so-called Model Village?” “We have a central heating system, sir; the cottagers get free steam heat!”

In this truly model town, which vividly reminded me of Boulder City, in Nevada, 73,000 electric lamps are used, while 3,200 cubic meters of gas are consumed daily, and 30,000 cubic meters of pure river water. Fushun Hospital has seven departments, besides a branch for infectious diseases. A mutual relief association provides against accident, disease, retirement, and death. Cultural organizations include a library and three clubs, while in the western part of the town of Fushun 83,000 square meters of pleasure-ground have been set aside for the laborers, at a cost of ¥100,000 annually.

About forty thousand Chinese laborers are employed in the colliery, who earn annual wages of ¥8,000,000. The average wage is eighty sen a day, which is good pay for a Chinese in Manchuria. Each laborer is given free residence, fuel, electric lighting, drinking water, baths, hair-cuts, etc., in fact every necessity except food, which costs only twenty sen a day for three wholesome meals.
Labor trouble is practically unknown, and yet one of the reporters to whom I referred in Chapter III chose the neighborhood of Fushun in which to stage an entirely fictitious massacre of three thousand helpless Chinamen by the awful Japanese!*

Returning to Mukden, I determined to see something of the Old Town that had so charmed me on my previous visit. I knew that Mukden had long been the capital of the Manchus, who built the wonderful Forbidden City at Peking as well as these ancient palaces here—which I was to find still intact, and, in fact, much better kept than when I last saw them. "For hundreds of years they were the repository of a library of thousands of volumes, of priceless jewels and precious stones, and of articles of rare workmanship in silver and porcelain and jade." One still sees exquisite paintings hanging on the palace walls, while the original Dragon Throne of red lacquer remains one of the priceless treasures of the world.

The place I wished most of all to revisit is the northern imperial tomb at Pei-ling,

* Time did not permit visiting other coal fields, of which there are fifty or so, or the great iron works at Anshan and Kung-changling.
a four-mile drive from Mukden. It was built in 1643 to mark the graves of the Emperor and Empress Tai-Tsung, and is one of the loveliest spots in the Orient. In 1923, the time of my former visit, old Chang Tso-lin ruled all Manchuria from his Mukden headquarters, but he had not yet set his hand to the renovation of ruins. Chang Tso-lin was a strange mixture, for it is to his taste and energy that we owe the restoration of the northern mausoleum to most of its former glory.

Roughly, it is the Forbidden City in miniature. This has its advantages, for the eye and mind can take it in. A walled rectangle eighteen hundred feet in circumference is entered through a marble gateway, or pailou, of exquisite proportions, supporting open-roof galleries of a singularly beautiful design.

Upon flagstones one now walks on through the triple arches of a massive inner gate of impressive majesty; and then still onward to a double-roofed outer shrine, guarded by rows of horses and camels and elephants sculptured in stone with much abler art than similar effigies lining the approach to the gigantic Ming tombs near
both Peking and Nanking. But I was particularly struck by a carved marble column at the side of this shrine, exactly like some of the famous Sanchi columns in India. This, with the big stone elephants, carries one back to the ancient cultural commerce between these two lands.

The inner shrine, approached across a marble piazza surrounded by an elegant balustrade, is perhaps less impressive than the structures already seen—except, indeed, for a threshold of jade! Measuring some three feet by seven, this is no doubt the supreme jade treasure of the world, and one can only thank "Old Grandfather Heaven" for having preserved it through the war storms that have whirled around it.

The tomb itself, a large tumulus, is guarded by a double-roofed massive structure; and then one takes a never-to-be-forgotten walk upon the wall.

Arising from the wall is one of the most graceful pavilions in Asia: three-storied, the stories diminishing as they ascend, their richly tiled roofs supported by rounded columns with winged capitals, all as harmoniously beautiful to my eye as the Parthenon itself.
From the summit of this high wall the eye is almost dazzled by the sunshine flashing from the glazed and golden tiles of all these marvelous structures. The symmetry of the entire plan now becomes manifest; and one who loves trees notes with joy the grove of solemn pines planted around the major part of the enclosure, three centuries ago, the grove stopping short where it meets the primeval forest,—left untouched to shade the tomb of royalty.

The eastern imperial tomb, ten miles from Mukden, is said to be equally impressive, but the Mayor was not minded to have his guest seized by bandits, who infest that region.

This reminds me that Chang Tso-lin got his start in life as a bandit. In fact, he never quite gave up this profession. Kidnapped by the Hung-hutze, or red-beards, as a boy, he grew up among them without education, but they disciplined his native ability. His turn for arms led him to join the Japanese during their war with Russia. After the war he easily made himself chief of the Manchurian bandits, with whom he so harried Peking that the Chinese bought him off with a colonel’s commission. As
soon as he felt strong enough he re-assembled his bandit army and led it against Peking. In 1923 he had managed to set up an independent Manchurian government and was known throughout Eastern Asia as "the Manchurian tiger." He looked little enough like a tiger, except for the smile on his face, being a diminutive person, like Napoleon, Hideyoshi, and Andrew Carnegie. He was fond of padding himself out with enormous Manchurian robes. Credit must not be denied him for his zeal to make the "three eastern provinces" self-supporting; economically as well as politically independent of China. He introduced all sorts of modern improvements, from good roads to airplanes. He disciplined his army severely. Once he executed two generals on finding them guilty of practising the time-honored "squeeze" on their men.

"The Old Tiger" interested himself in providing for the youth of Manchuria educational privileges such as he never enjoyed. On the way from the northern mausoleum back to Mukden one rides through the thousand-acre campus of Northeastern University, built and maintained by him—it must be confessed, however, out of extortionate taxes levied on his people. The imposing
brick buildings have been closed since the Japanese seizure of Mukden in September, 1931, but will some day be opened again. Chang Tso-lin’s university had some thousand students, about equally divided between liberal arts and technology.

While building his university, this super-bandit built for himself a war plant second only to that of Miss Bertha Krupp. I had heard so much of the Heikosho, especially of its fabulous size, that I begged to be driven along its walled enclosure, which I found to be one-and-a-half miles long and nearly half-a-mile wide. Under both the Old and the Young Marshal it accommodated some thirty thousand mechanics, busy day and night turning out munitions.

Chang Tso-lin spent no less than 100,000,000 Chinese dollars for the establishment of his arsenal, to say nothing of maintaining it. He had a standing army of 300,000, larger than the entire standing army of the Japanese Empire. And it takes money to maintain such a force. And Chang had no other magic gold-mine than the toil of millions of hapless peasants. The revenue of the Three Eastern Provinces for the financial year of 1930 totaled 133,000,000 Chinese dollars. Of this more than eighty-five per cent was spent on militarism. Every penny came out of the peasants and mer-
chants, most of whom keep body and soul together on less than ten cents a day, American money.

That hundred-million-dollar death plant is now itself dead; as dead as The Old Tiger's dream of a new dynasty on the Dragon Throne at Peking. Not a single wheel is turning in all that vast enclosure; there is not a hum or a whirl in all that bewildering world crammed with the most modern machinery for the manufacture of war materials. It went dead at the touch of the Japanese army. On the other hand, the Medical College and the Hospital in the New Town are as lively as ever. *

During this drive I got my first clue to the character of His Excellency Pu-yi, Chief Executive of Manchukuo. A large wooded estate was pointed out as the former site of the summer palace of The Young Marshal, Chang Tso-lin's son and heir. This palace with its gaiety was too near the tomb of his ancestors to suit Pu-yi's tastes, so he had it demolished. Now not one stone stands upon another.

The Young Marshal seems to have been "a regular fellow," little more. American

* This sketch of the arsenal, etc., is derived from Mr. K. Adachi's "Tales of Three Cities in Manchuria."
ladies say that he was a good bridge-player. Self-educated,—in China,—he emulated his father by giving five million dollars to education, founding a girls’ college. Although believing the Japanese guilty of blowing up his father in the railway explosion near Mukden in 1928, he did not seem to dislike them individually, but rather to like them. He was on especially good terms with his principal foe, General Honjo, who reciprocated his friendship. W. H. Donald, a remarkable and admirable Australian, served as his chief adviser. One who was present when at last he “resigned” says that he threw up his hands and exclaimed with an air of relief, in English, “Now I’m a free man!”