Robert D. Locke was born near Lancaster, New Hampshire, in 1850. His father, Elbridge Locke, was a millwright and knew the lumber business. Elbridge’s brother, Jonathan, also a millwright, had moved to Titusville, Pa., in the 1840s to establish saw mills on Oil Creek and work for Brewer, Watson and Company. He also had a lathe and blacksmith shop at Upper Mill of the Brewer, Watson and Company. To help him with his work in the shop, Jonathan sent for Elbridge to come to Titusville. In September 1860, Elbridge Locke, his wife and six children arrived in Titusville on a dark, rainy night. Every hotel and lodging house was filled to capacity because of the influx of hundreds of people who had come to Titusville due to the excitement over the Drake Well drilled in August 1859. The excitement was said to have rivaled the gold rush to California.

The Lockes expected to stay with Jonathan who lived on the Mackey farm just east of the Drake Well but due to a bridge over Oil Creek being out, they couldn’t get across the swollen creek. A neighbor of Jonathan, Rexford Pierce, kept the Locke family overnight and the next day they got to Jonathan’s, where they lived until 1862. In that year the Locke family moved into a house at the Drake Well vacated by the family of “Uncle Billy” Smith. Here the Locke family lived until 1867.

It was around the Drake Well that young Robert Locke grew up, became acquainted with Colonel Edwin L. Drake, “Uncle Billy” Smith, the driller of the Drake Well, and began his career as an oilman. The oil business got an early hold on him. For a brief time,
young Locke was employed as a "pulley boy" on the Drake Well, a job that required his being perched on the top of the derrick. At the age of 12, he was firing a boiler to drill a well. In 1863 his cousin, who had enlisted in the Union Army, gave him a small, primitive still, and 13-year-old Robert started in the refining business. He then went into the machine shop of Locke and Hamilton and at fifteen was a full-fledged machinist. His interest in all phases of the new oil business lured him into driving pipe in order to drill a well, laying pipe for a pipeline in Butler County, gauging oil tanks, drilling, tool dressing, shooting oil wells with the Roberts torpedo, and pumping oil wells. By 1877 Locke had had a varied experience in many aspects of drilling for oil and was a good, natural mechanic.

During the summer of 1877 a representative of the Chinese government came to Titusville and contracted with Locke and A. P. Karns to go to Formosa (Taiwan today) and drill for oil. On 4 September 1877, the two men left Titusville for San Francisco and Taiwan.

Very little seems to be known either in the United States or in Taiwan about the drilling of this first oil well in China. What we do know comes from two main sources: first, Mr. Locke kept a diary of his trip to Taiwan, during the year 1877-78 that he and Karns worked on drilling the oil well and the trip back from Taiwan to Titusville. Second, on 31 May 1940,—three months before his 90th birthday—I took a Secretary who could use shorthand, from Meadville to Titusville and I interviewed Mr. Locke about the drilling of this first oil well in Taiwan by Mr. Karns and him. I would ask the questions and my Secretary would take down Mr. Locke's answers in shorthand. Later, she transcribed her notes, which appear verbatim below.

When Mr. Locke returned to Titusville in December 1878, he and Mr. E. R. Young established a foundry and machine shop. In 1896 Locke retired from the firm and engaged in oil production. He died in February 1943, at the age of 92 years. His death in Titusville marked the last personal link between the drilling of the Drake Well and modern times.

LOCKE'S RECOLLECTIONS

Q. Did somebody come here (Titusville) to see you?
A. The first of this was started by a man named Todd in Formosa. He was buying camphor. He went down into the interior [of Formosa] after camphor and ran across an oil spring, and the oil was
CHINA'S FIRST OIL WELL

seeping out. He knew what it was. The Chinese didn’t allow anyone
to do any mining outside of the government. He started to form a
company. This was in the Head Hunter Territory about two miles
back in the hills. The Hackers lived next to them. He got into the
[territory of the] Head Hunters. The government found out he was
down there and they sent soldiers down after him. He got word of it
and so he came back through the better class of Chinese on the west
side of the island and he got back to Tam Suey [Tamsui]. He did not
get his company formed—the government took it up.

They had a man at Hartford, Connecticut, that had a Chinese
school there—he was brought up by a missionary—he and this man in
Hartford were brought up with Brown’s son and he was sent over here
and opened up a school.1 This Tong King Sing was the one who got
the government into it. Then he took it up with the government and
so they sent word over to this Chinaman [Young Wing] in Hartford
to get some tools and men to open up the country. He hired a Dr.
Kellogg to come to Titusville to employ the men and get the tools.2

Kellogg came out here [Titusville] and he was the one to draw up the
contract. That involved me and Mr. Karns. The first contract was
the one that was replaced by a second.3 They were to pay so much
a month and all expenses—they didn’t know how much it would take
to support us—so the first contract had to be changed—they were
going to pay me $1,200 and Karns got $3,000 [a month]. I was
working in a machine shop when I got into it. So we got that $1,200
clear in 1877 on September 4.

We went by way of San Francisco, and the tools went by way of the
Suez. Kellogg bought his tools here [Titusville]. Karns was a rig

1. One of the first Protestant missionaries sent to China by the London and British
   Foreign Missionary Society was the Rev. Robert Morrison, a Scotchman, whose
   activities extended to Formosa. As the work of Rev. Morrison grew, he needed an
   assistant and a New England minister, a Rev. Brown, was sent to help him. Later,
   Rev. Brown adopted, raised and educated two Chinese boys out of different families
   as companions for his son, Robert Morrison Brown. Tong King Sing and Young Wing
   became apt and ambitious students.

   From 1872 to 1875 the Chinese government selected 120 teen-agers and sent them
   by batches to the United States to study. Young Wing became the head of the school
   for Chinese established in Hartford, Connecticut, and also served as Deputy Chief
   of the Chinese Legation in Washington, D. C. Tong King Sing became in China
   the President or Commissioner of a semi-governmental agency, the Chinese
   Merchants Steamship Company.

2. The Chinese school in Hartford employed a number of American teachers and
   Dr. Kellogg was possibly one of them.

3. F. F. Murray, “Titusville Men Drilled in China in 1877.” The Oil and Gas Journal,
   October 1, 1931, 18-.
builder and he did everything that was to be done. He was about 38—I was 27. All the goods were bought through Gibbs & Sterrett and Company—the bill was $30,000. Gibbs & Russell was the same company. They got double on everything—Mr. Karns made up the list of stuff to take and he took plenty of everything—we had everything—everything duplicated.

We left here [Titusville] soon after the goods were shipped—we went to Shanghai and stayed there a month—Japan about a week—and then went to Foochow for three weeks. Took an American boat to Shanghai—on the sea twenty-three days going over. Went from Yokohama to Shanghai on a Chinese boat. Spent a month in Shanghai and waited. Tong King Sing and Brown—Brown was one of those fellows—just cared for a good time. Tong King Sing wanted to give him something to do so he put him in charge of it [the drilling for oil by Locke and Karns]. The Chinese were experimenting with the light torpedo and he had left a letter until he came down and when he came he sent us on a Chinese boat to Foochow and we had dinner with the Governor. They put us up in a first class hotel and took us around. They don’t get excited about Americans—they had had them in Foochow and they were used to them. A man in Samoa had been in China eight years and had never been able to go to a Chinese first class dinner but we got so sick of Chinese dinners.

Nobody met us in Shanghai—just the letter from Brown. Brown came down and sent us down there. I don’t know why we were sent to Foochow. We were just retiring when they got us up and sent us to Foochow on a Chinese gunboat. It took us three days to go thirty miles. It was a steamer—had four English guns, 6-inch and a 9-inch German gun—a wooden boat, British built—it was the Captain of this boat who wrote this contract. Landed us on the southern end of the island. We were there over a month. Every few days the governor invited us over for a Chinese dinner at Ti Wun Fu [Tai-wan-foo] the north end was where they got the coal. He kept us there and finally Karns wanted to get to work. I was having a good time. The interpreter said there was no hurry. We had different interpreters.

Finally we went up to the oil springs 125 miles north of Ti Wun Fu [Tai-wan-foo]. We had to go up in chairs. The coolies carried us up. It took a long time—over two weeks, I think—pretty slow going. They were just showing us off. We had 200 soldiers going with us there—

4. The purchase included 200 feet of 8 inch pipe, 1,000 feet of 5 inch casing, two boilers, two—15 H.P. engines and other equipment and tools.
there were fifty up at the oil springs. The General of the army—he was awfully nice—showed us where they were going to drill the well. We were there three days and had to go back to Ti Wun Fu (Tai-wan-foo)—don’t know why. In those three days we just looked around. Had another Chinese dinner. There was a small town down about two miles from the well. The oil was on a hill in a ravine in the Head Hunter’s territory. They took us back to Ti Wun Fu [Tai-wan-foo] and I asked the Governor why he brought us back—he said it was so we could spend New Year’s Day in Ti Wun Fu [Tai-wan-foo]. We only stayed there for a week or ten days and then he let us go again. We went back on our own and we could go as fast as we liked—it took about eleven days.

Our equipment—there were no roads and the mouth of the river was quite shallow and we had a time figuring out a way to get the tools up. We made a road following the bed of the stream part of the way and built a wagon—about fourteen miles from the harbor to the well—200 coolies built that road. It took from the first of January—I had the road built before the tools came—to about the first of June. This Chinese was the best mechanic I ever knew. Yes, he could make it. He did not have anything to make it with. He had to send men back into the woods to cut the stuff to make it—three inch planks and put it together crosswise. They had a foot saw for sawing lumber. Someone had shown them how to work it. This fellow had just picked up his mechanics. This fellow had a shop there. Then we wanted some iron to put on the axles and hubs. They had never seen nails or axles or anything. That fellow picked up cast iron from kettles and he smelted them and made wrought iron on a common forge and he made enough to make those rings. He was a long time doing it—five months we were doing nothing. We got the wagon built to haul boilers and engines.

I never knew the name of the little town—couldn’t pronounce it. Only about one thousand people in it. Had a bamboo grove around it. There was a little town down on the coast at the mouth of the river—Ulan [Hou Lung]. There were two or three towns on the way up—one where we had the wagon built. The Chinese Captain wrote the contract at the south end of the island—at Ti Wun Fu [Tai-wan-foo], the capital of the island. That was the first time we knew they could not fulfill the contract. The government was to have furnished us with board and everything and could not do it so we made a new contract. The second was less beneficial than the first.

5. Captain Yip-a-Foo of Her Majesty’s gunboat, Tsing Yune.
We got the road built and the wagon built about the first of June and the supplies came and were loaded then onto a Chinese gunboat to go to the island, and this gunboat could not get into the harbor and went to Tim Suey [Tamsui] at the north end and loaded them onto Chinese junks and went over the bars in the mouth of the harbor. So we built a store house there to keep the goods that we did not need. We took them up to where we were going to drill the well. Then the Head Hunters were chopping off heads and we had to take care of them, and made a contract with the nearest tribe to watch the tribes farther back and not allow them to come down and interfere with us—we paid them $50 a month and the next month they didn’t pay them so they started chopping off Chinese heads so they had to make another contract. Karns was getting ready to build the rig. I took out my pipe and tobacco. A Head Hunter nearby noticed it—we had ten personal soldiers—and one of these soldiers knew what I called tobacco, and the Head Hunter called it the same thing and was so pleased that we should call it the same thing that he took us in right away. They used tobacco too. So that opened the door.

We visited the village one Sunday. They had little huts made out of bamboo—there was a head in one of them. None in our party were ever lost. These Chinese would go back in the woods to raise peanuts. There was high grass and the Head Hunters would sneak around in it and shoot someone and take their head.

Mr. Karns was building the rig. It was a standard rig—we took the derrick from here. The foot saws came in handy. I was building the road and Karns was up there building the rig. They sawed out some pine—this derrick we had was pine, and we took over enough iron hubs to build a 250 barrel tank. We ordered the lumber to build a 250 barrel tank and they sent back to get the lumber, but we never built it. After the road was built and the rig up, we drilled just as they do here [Pennsylvania]—got down to bed rock. Because it is volcanic country the rock all stands up edgewise. There was a ledge running perpendicularly—100 feet in that ledge—you could see the sand the same as here—at one time it had been full of oil. This rock was about a mile above the well. We got to the surface about ten or twelve feet—then we went down. The well we drilled was only 397 feet. You drilled down to the rocks about twelve feet—the main rock—then we drilled about as fast as here (Pennsylvania Oil Region)—the rock was very soft—in places it caved in.
Then we drilled down and struck these crevices and salt water and oil would come in. We had trouble with caving—had to go about 400 feet down with about 200 feet of casing. Even the last crevice we struck had quite a lot of water and gas but we could pump about ten gallons of oil a day. They built tanks there to hold about twenty barrels—wooden tanks. They built these to make indigo—looks like blue clay, and then they shipped it—same with camphor. So we put it in two or three tanks. It didn’t take long to get down those 400 feet. We struck oil at 400 feet—we wanted to go farther but our time was up. Karns insisted on shutting the water off. That was the first well to be drilled in China. They get oil in China on the mainland but it wasn’t a drilled well like American wells.

We went to Hong Kong after we finished in the last of November and took the boat from Hong Kong to San Francisco—got there just before Christmas. My father lived in San Francisco; most of my people lived there; three of mother’s brothers lived there. I stayed until March. Got back here [Titusville] about the first of April. Karns came straight home.

Never heard a thing about the well after that—the Japs took it over but they never got much oil. We got all the money we had coming to us—they fulfilled the contract. We left the rig and all right there. No one knew much about our going to China. There was a story in the paper [Titusville Herald].

We couldn’t get many letters out there. We were 75 miles from the nearest consul. We had to send there to get any mail. Got the mail about once a month. No U.S. officials out there—there was a man from Canada, a missionary. He came down to Ulan [Hou Lung] while I was unloading the stuff. He had a little church about three or four miles from there, but he stayed along the Coast. He would go out to pull teeth for the Chinese in an open court. He sent me a note to come over and see him so I went over and he had a chair in the middle of this court and was pulling teeth. He had pulled about 250 teeth since he had been there. He had taken a tumor out of a Chinaman’s face.

The U.S. Government officials knew what we were doing. We visited the Consul at Shanghai and there was an Englishman who was looking after U.S. business at Ti Wun Fu [Tai-wan-foo]. He signed that contract—W. Holland.

Chair-bearers could travel about sixteen miles in a day. First name of Brown—Robert Morrison, named after Robert Morrison, the first
Protestant missionary in China. He stayed with us about a month while we were building a rig. He had been educated here (U.S.) until the war broke out. He enlisted, but his father took him out. His father took these two Chinese boys and brought them up with him in China. The fellow in Hartford running the school is one of the Chinese boys. When Brown came down here he always signed his name Robert Morrison Brown and I asked him who Morrison was and he said he was the first Protestant missionary in China. When I got back to San Francisco I asked my mother’s father who Robert Morrison was. He said he spent the summer with us up in Vermont about the year I was born. After he got an assistant in China, he came to visit my grandfather, his cousin.

How did they pick Mr. Karns? Gibbs & Sterrett recommended him as a driller and rig builder. We tried to get a wagon from Hong Kong but couldn’t. The oil we pumped was never used. I wanted to build a refinery there at the town at the harbor. Used camphor wood for fuel for the boilers. I don’t think they used the well until the Japs got into it. It was bad country because the rock was turned edgewise. The oil leaked out. Gas had been burning there for years above the oil. This gas was burning among some rocks and when it was dry the gas would burn at the top and when the rains came it would burn below. It wasn’t gas country. It would have been fine oil country if the rock had not been thrown up. The volcanic eruptions had caused it; the oil and gas had been leaking out. I wouldn’t have drilled up there where the oil was seeping out; I would have drilled down at the east coast. It used to be reported in the papers the amount of oil produced.

We left Titusville September 4, 1877, to go to China after the inauguration of Hayes. We got the supplies intact in China. Two or three car loads [railroad box cars] of stuff; 200 feet of 8 inch pipe, one thousand feet of 5 inch casing, the boilers had 15 horsepower engines. We had eighteen buffalo to pull the wagon, mud buffaloes. They were very easily tamed. They were slow. They could tell the difference between us and the Chinese. They would run if they could not see us. One could be used for plowing; the Chinese drive them with a single rein with a ring through his nose. We had two cooks with us—Chinese cooks who could speak English. The water was not good; we were warned about it and it had to be boiled. Also we weren’t to eat any pork. Holland was a good fellow—gave us a lot of good advice. We didn’t work on Sunday. They built us an adobe house on the hill. We were only in it three or four weeks before we came home.
There was an island in the stream covered with grass and there was a small tree there. I went out there and took a book and got under this tree and went to sleep. They had brought up a lot of these buffalo to feed and all at once I wakened up and I heard a thumping—here was a row of those buffalo with their heads toward the tree sniffing. I contemplated climbing the tree if they should decide to charge, but upon recognizing me they calmly turned away.

It was hot all the time we were there. I don’t know how much it cost the Chinese government—our being there. The coolies got paid 18 cents a day. It probably cost about $100,000. The Chinese government never printed anything on it that I know of. There were English newspapers in Shanghai. There were German, French and English towns along the wall of Shanghai. We wanted to go through the old city. They have these sampans which take people out, so we hired a Chinese to take us up stream above the city and we were coming back through the town, but we had not come very far through the town until the Chinese kids started following us calling us names. The landlord said that we might have been killed because they hate foreigners. While we were there in Shanghai, they tore up the only railroad in China as a protest against foreigners. The charter ran out and the Chinese bought it and tore it up; dumped the rails into the ocean and said it was an accident.

Brown did not go to Foochow. We saw him in Shanghai and next at the well for about a month. Met him in Ti Wun Fu [Tai-wan-foo] and he came back with us to Hong Kong.

Tong King Sing was the man who got us over there; he was President of the Merchant Steamship Company. Yung Wing was the name of the Hartford man—no relation—just brought up with Brown; took him in as a companion for Brown at Canton. Brown’s father was an assistant to Robert Morrison. Brown was an American.
Alton, Ill., June 27th, 1863

My dear Mother,

We are glad to be able to say we are well and in very good spirits considering the existing state of things. Our men are turning out well since the town has been quieted to see to their families. The P. C. P. pays 50c. to the family of each of its employees that goes with the three six-months men or for the war, but only promises it for the three months. Individuals have subscribed a special fund beside to aid the families of any who go from our town. The 3rd Chester & Delaware Co. men left here yesterday for one of the gaps. Col. Tarnall made a very good speech before he left which did not seem as the time to make much of an impression and as they filed past the Logan House or later the east for Holloway Bridge— one of the men leaned his hand on—