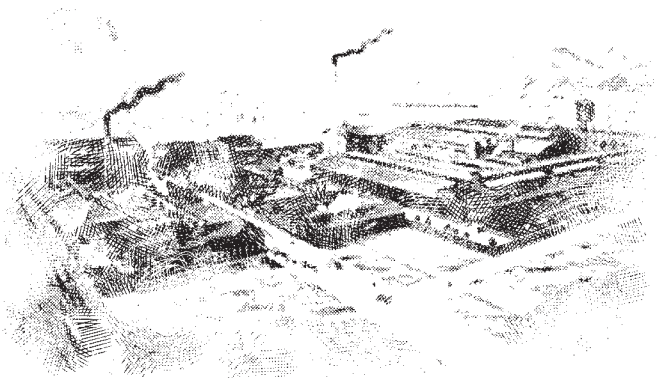


## Chapter 4

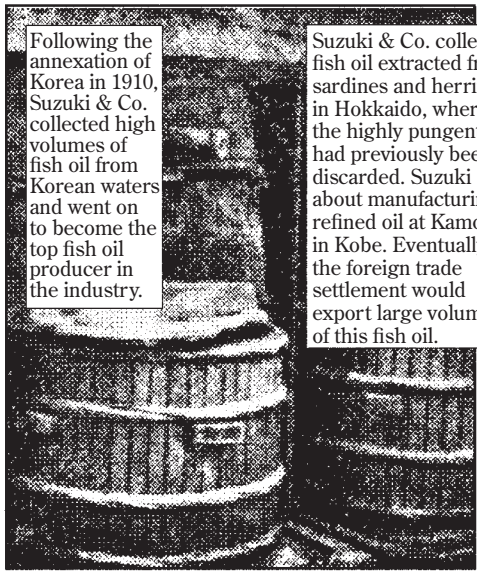
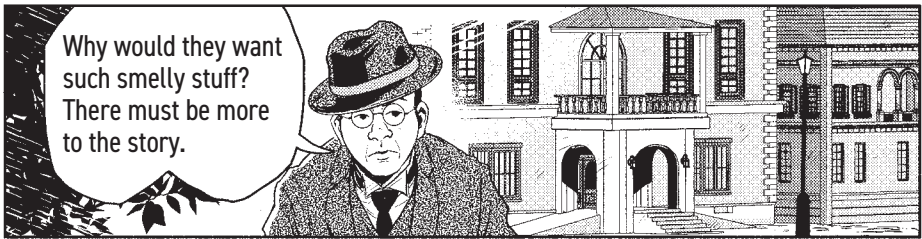
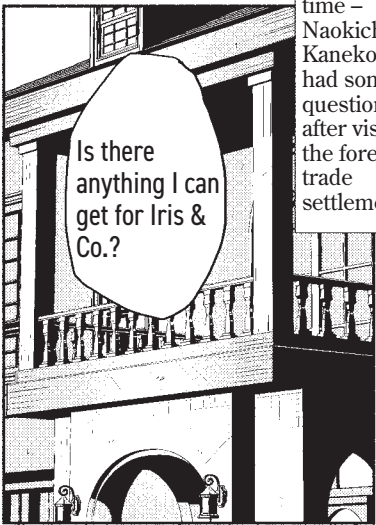
Suzuki & Co.

Japan's first hydrogenated oil business

Partnering with a world traveler to start a  
rubber business

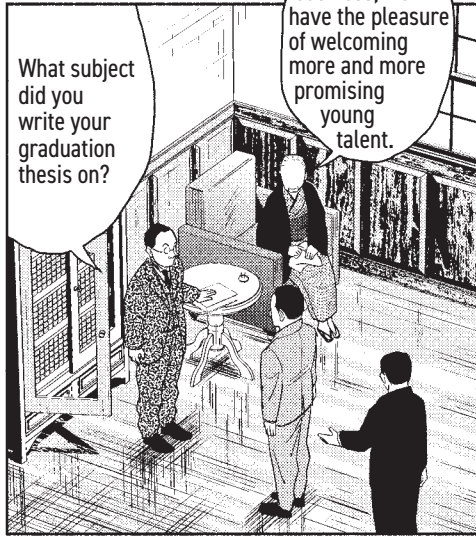


Going back earlier in time – Naokichi Kaneko had some questions after visiting the foreign trade settlement.



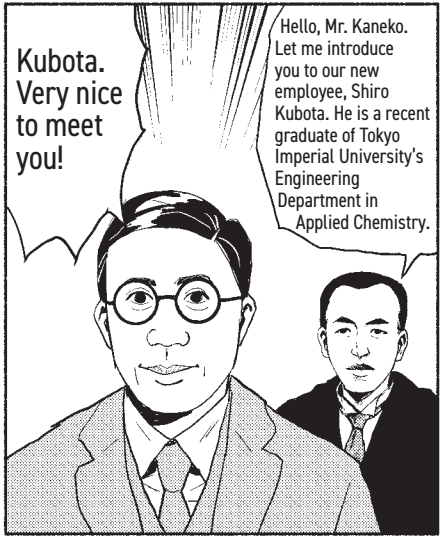
Following the annexation of Korea in 1910, Suzuki & Co. collected high volumes of fish oil from Korean waters and went on to become the top fish oil producer in the industry.

Suzuki & Co. collected fish oil extracted from sardines and herring in Hokkaido, where the highly pungent oil had previously been discarded. Suzuki set about manufacturing refined oil at Kamojima in Kobe. Eventually the foreign trade settlement would export large volumes of this fish oil.



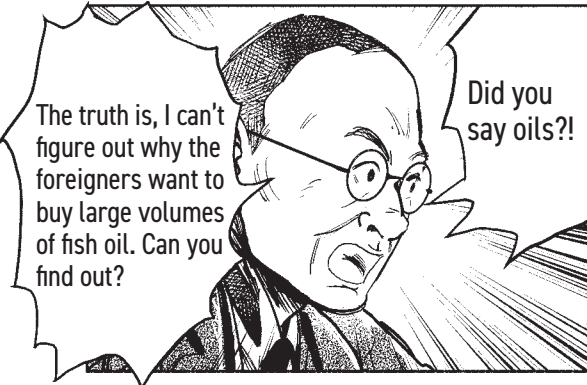
What subject did you write your graduation thesis on?

As Suzuki grows as a business, we have the pleasure of welcoming more and more promising young talent.



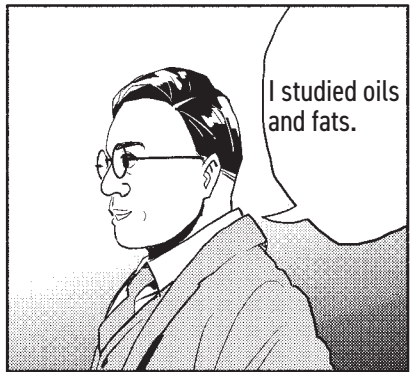
Kubota. Very nice to meet you!

Hello, Mr. Kaneko. Let me introduce you to our new employee, Shiro Kubota. He is a recent graduate of Tokyo Imperial University's Engineering Department in Applied Chemistry.

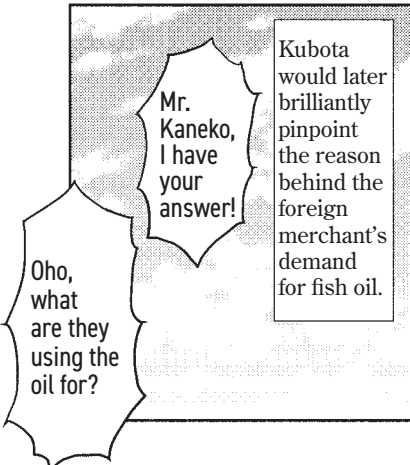


The truth is, I can't figure out why the foreigners want to buy large volumes of fish oil. Can you find out?

Did you say oils?!

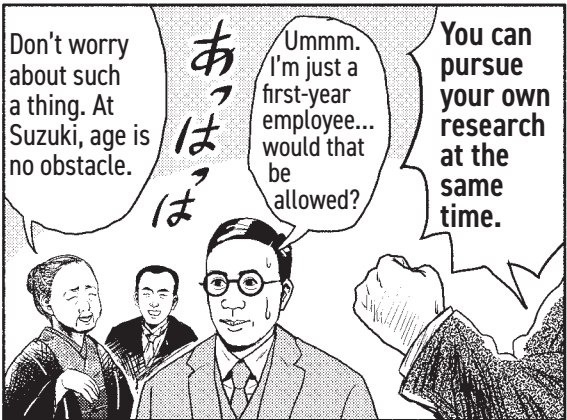


I studied oils and fats.



Mr. Kaneko, I have your answer!

Kubota would later brilliantly pinpoint the reason behind the foreign merchant's demand for fish oil.



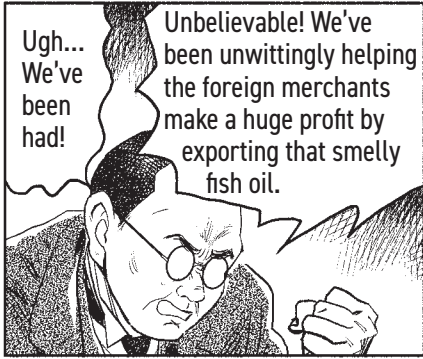
Don't worry about such a thing. At Suzuki, age is no obstacle.

あ、は、は

Ummm. I'm just a first-year employee... would that be allowed?

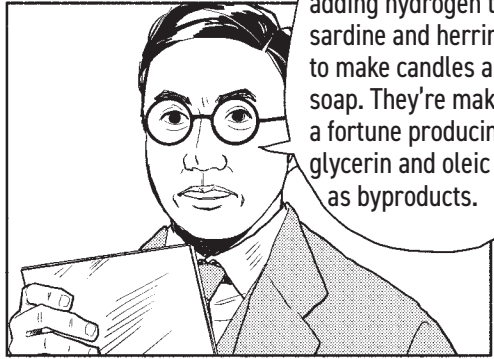
You can pursue your own research at the same time.

Oho, what are they using the oil for?

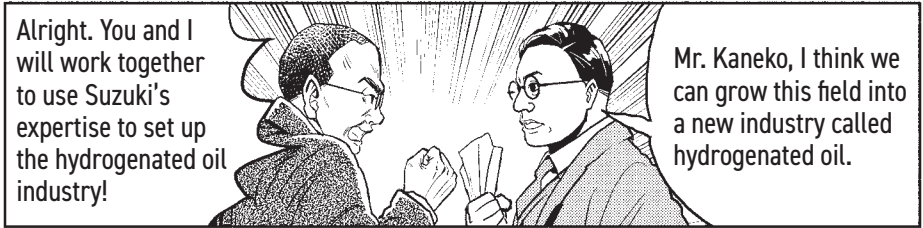


Ugh... We've been had!

Unbelievable! We've been unwittingly helping the foreign merchants make a huge profit by exporting that smelly fish oil.



Westerners are adding hydrogen to the sardine and herring oil to make candles and soap. They're making a fortune producing glycerin and oleic acid as byproducts.



Alright. You and I will work together to use Suzuki's expertise to set up the hydrogenated oil industry!

Mr. Kaneko, I think we can grow this field into a new industry called hydrogenated oil.

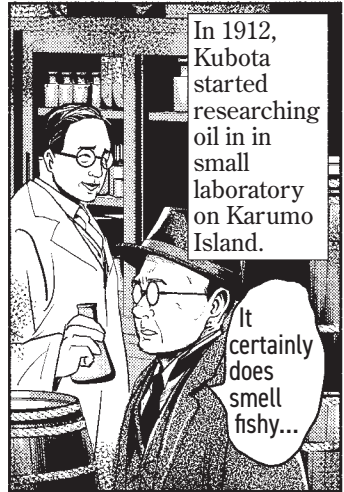


Great job! Next, we have to figure out the hydrogen. Let's create a hydrogen plant at Kobe Steel's central research facility.

Mr. Kaneko, we've finally created candle wax!

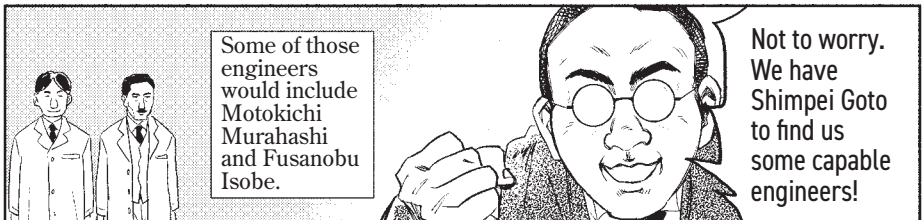
One year later, Kubota succeeded in producing wax for candles

But I'm afraid hydrogen isn't my area...



In 1912, Kubota started researching oil in in small laboratory on Karumo Island.

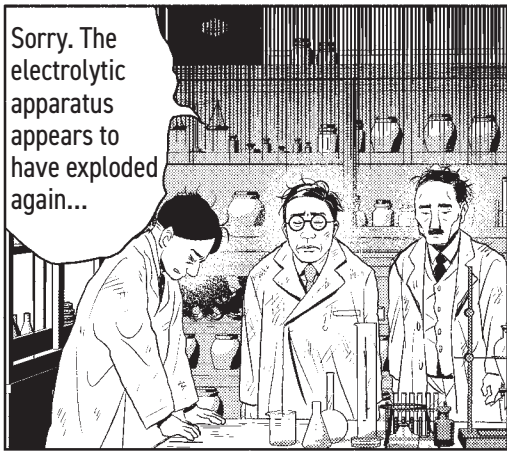
It certainly does smell fishy...



Some of those engineers would include Motokichi Murahashi and Fusanobu Isobe.

Not to worry. We have Shimpei Goto to find us some capable engineers!

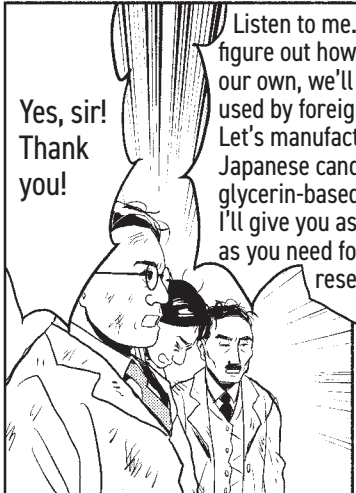




Sorry. The electrolytic apparatus appears to have exploded again...

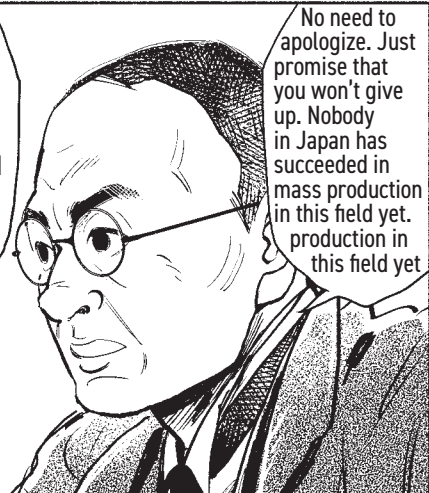


However, attempts to mass produce hydrogen did not go smoothly.



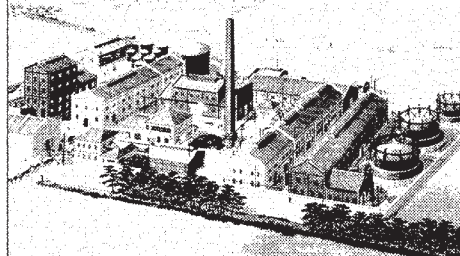
Yes, sir! Thank you!

Listen to me. If we don't figure out how to stand our own, we'll forever be used by foreign traders. Let's manufacture our own Japanese candles, soap, and glycerin-based explosives. I'll give you as much money as you need for this research.

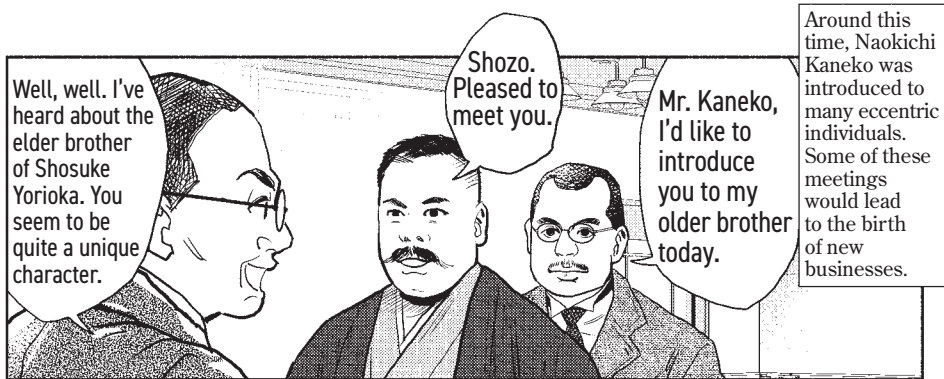


No need to apologize. Just promise that you won't give up. Nobody in Japan has succeeded in mass production in this field yet.

Investment for the research phase through mass production ultimately cost Suzuki & Co. as much money as they had earned from sale of the Dairi Sugar Refining Co.



Mass production finally started to seem like a reality. In 1915, construction began on Suzuki & Co.'s Hyogo Oil Refinery cross the shore from Karumo under Murahashi's leadership.

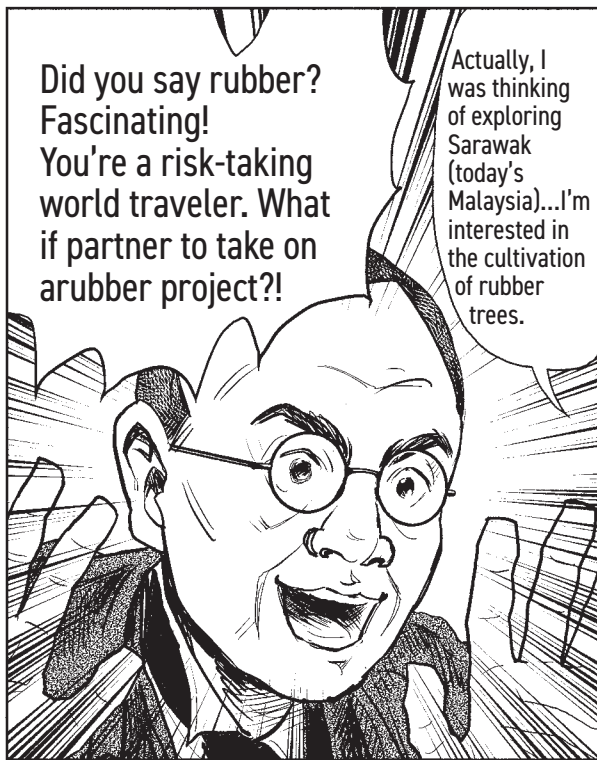


Well, well. I've heard about the elder brother of Shosuke Yorioka. You seem to be quite a unique character.

Shozo. Pleased to meet you.

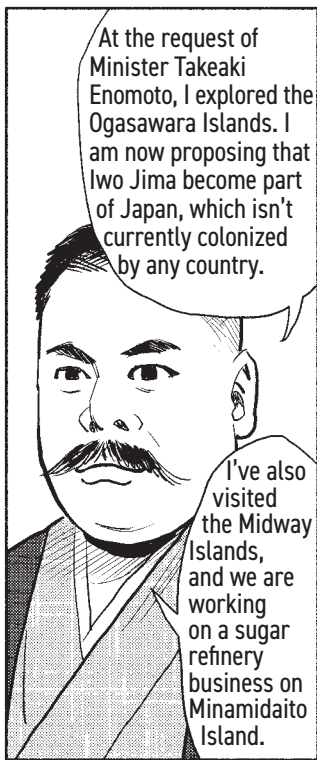
Mr. Kaneko, I'd like to introduce you to my older brother today.

Around this time, Naokichi Kaneko was introduced to many eccentric individuals. Some of these meetings would lead to the birth of new businesses.



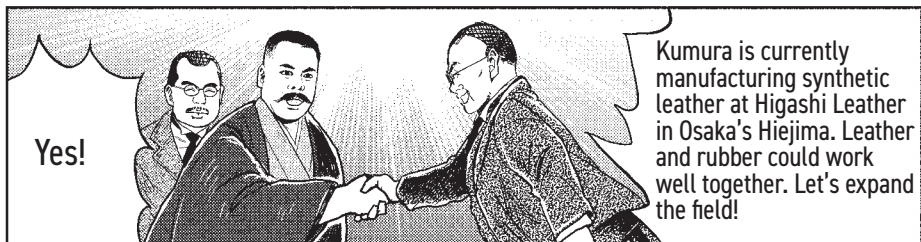
Did you say rubber? Fascinating! You're a risk-taking world traveler. What if partner to take on arubber project?!

Actually, I was thinking of exploring Sarawak (today's Malaysia)...I'm interested in the cultivation of rubber trees.



At the request of Minister Takeaki Enomoto, I explored the Ogasawara Islands. I am now proposing that Iwo Jima become part of Japan, which isn't currently colonized by any country.

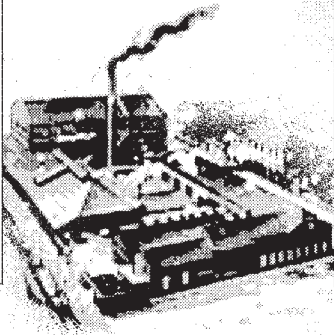
I've also visited the Midway Islands, and we are working on a sugar refinery business on Minamidaito Island.



Yes!

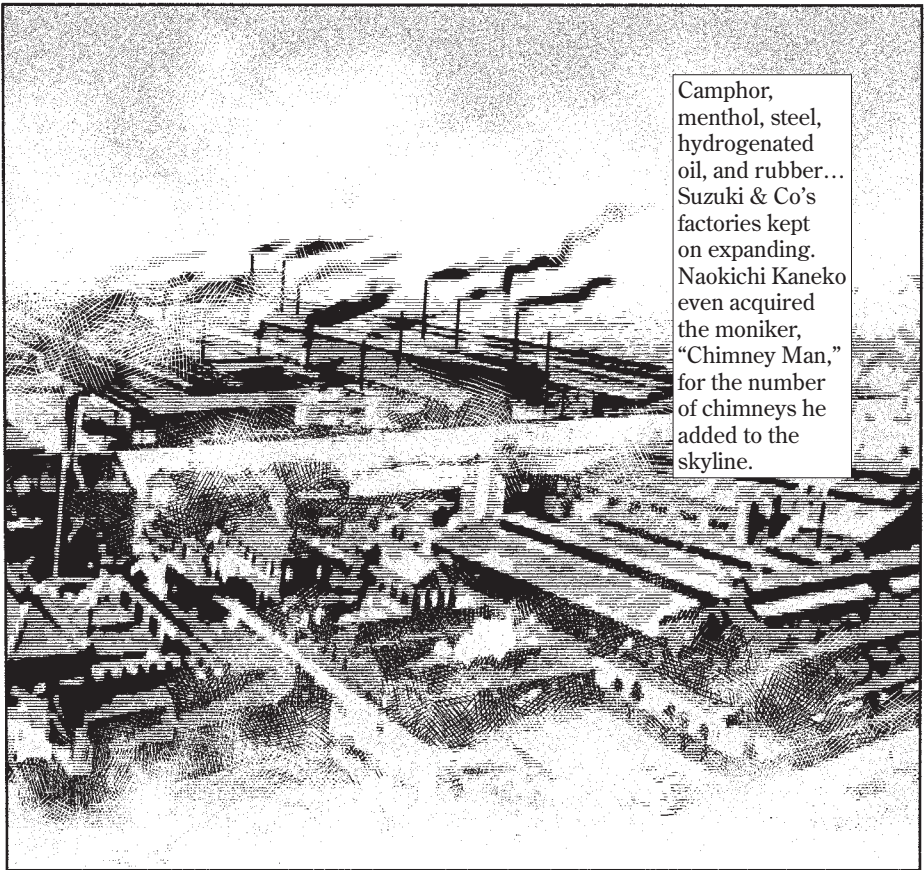
Kumura is currently manufacturing synthetic leather at Higashi Leather in Osaka's Hiejima. Leather and rubber could work well together. Let's expand the field!

Suzuki & Co. also began manufacturing fiberboard. Nissa Shokai founded Toyo Fibre Co., Ltd. (today's Hokuetsu Toyo Fibre Co., Ltd.)



In 1914, Suzuki established a rubber manufacturing plant in Minume, Kobe. The plant would become Nippon Ringyo Company. (today's Nichirin Co., Ltd.)

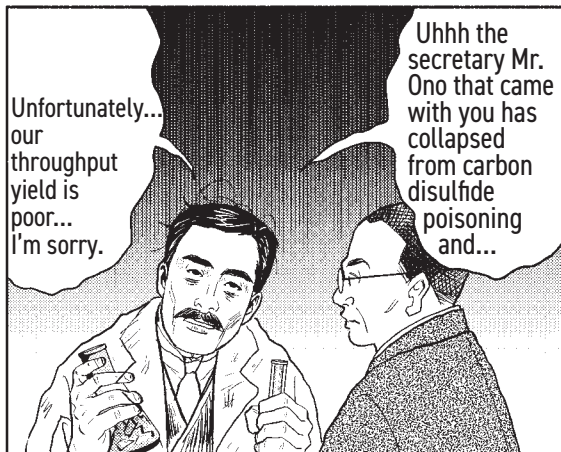
And so, Suzuki & Co. expanded into the rubber business.



Camphor, menthol, steel, hydrogenated oil, and rubber... Suzuki & Co's factories kept on expanding. Naokichi Kaneko even acquired the moniker, "Chimney Man," for the number of chimneys he added to the skyline.

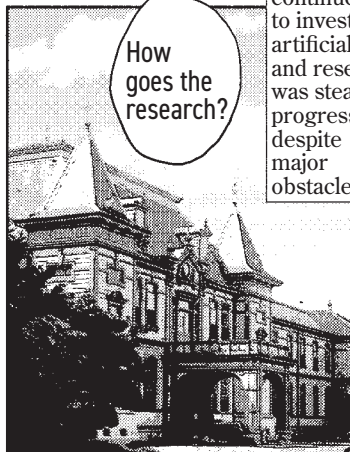


Kaneko Naokichi continued to invest in artificial silk, and research was steadily progressing despite major obstacles.



Unfortunately... our throughput yield is poor... I'm sorry.

Uhhh the secretary Mr. Ono that came with you has collapsed from carbon disulfide poisoning and...

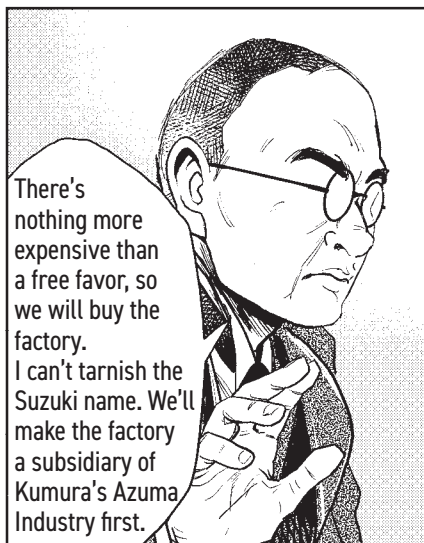


How goes the research?

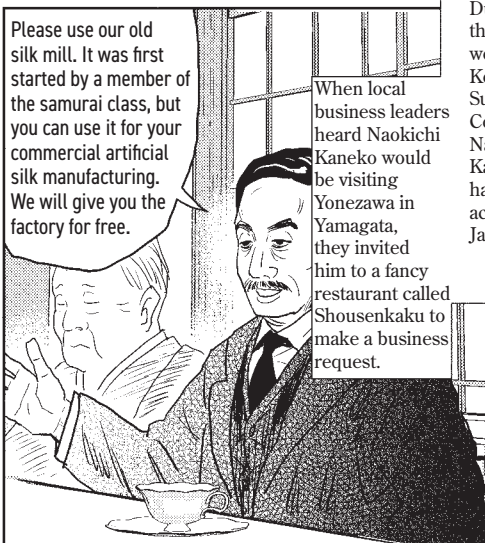


At that point, we'll be making a huge profit!!

Well, the current throughput yield is 60% at 4 yen. When the technology and machinery and workers all come together, we'll have a 90% yield at a cost of close to 80 sen.



There's nothing more expensive than a free favor, so we will buy the factory. I can't tarnish the Suzuki name. We'll make the factory a subsidiary of Kumura's Azuma Industry first.



Please use our old silk mill. It was first started by a member of the samurai class, but you can use it for your commercial artificial silk manufacturing. We will give you the factory for free.

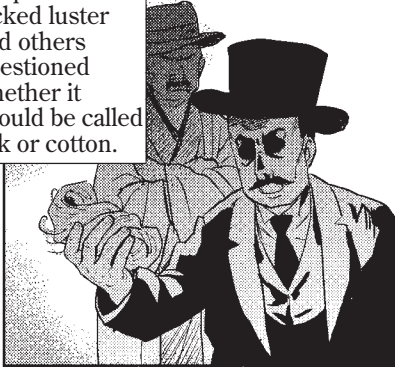
When local business leaders heard Naokichi Kaneko would be visiting Yonezawa in Yamagata, they invited him to a fancy restaurant called Shousenkaku to make a business request.

During this period, word of Kobe's Suzuki & Co. and Naokichi Kaneko had spread across Japan.



In May 1916, the factory began operations. Sample products were presented to customers.

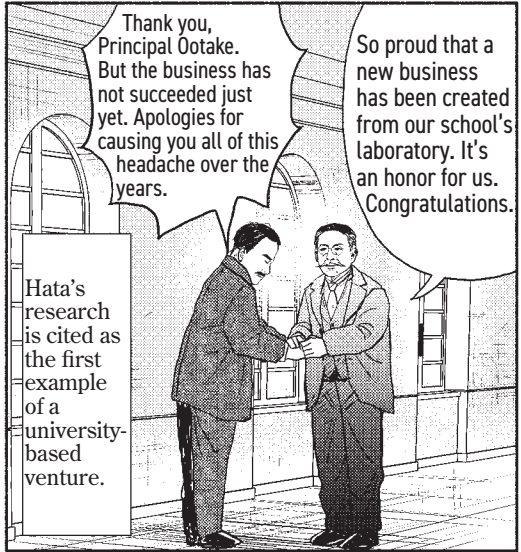
However, the reviews were mixed. Some complained the product lacked luster and others questioned whether it should be called silk or cotton.



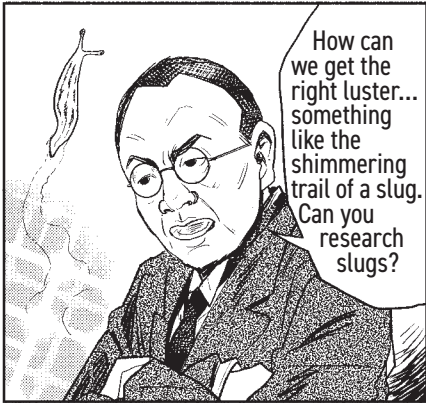
Thank you, Principal Ootake. But the business has not succeeded just yet. Apologies for causing you all of this headache over the years.

So proud that a new business has been created from our school's laboratory. It's an honor for us. Congratulations.

Hata's research is cited as the first example of a university-based venture.



How can we get the right luster... something like the shimmering trail of a slug. Can you research slugs?



I'm grateful to you, Mr. Kumura.

We must make this business a success!

Kumura came to Yonezawa to assist with manufacturing.

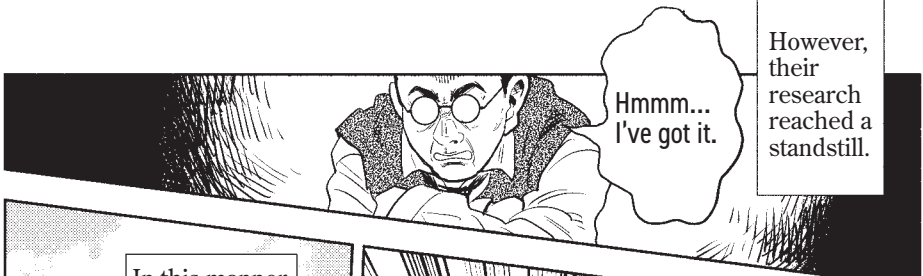


Naokichi Kaneko had no background in the field, but it didn't stop him from trying to offer outlandish advice.

Yes, add the slugs to the viscose!

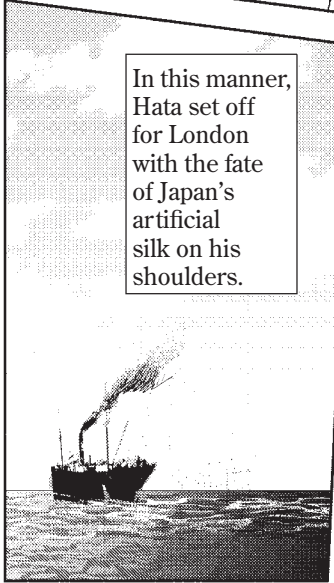
Slugs?!



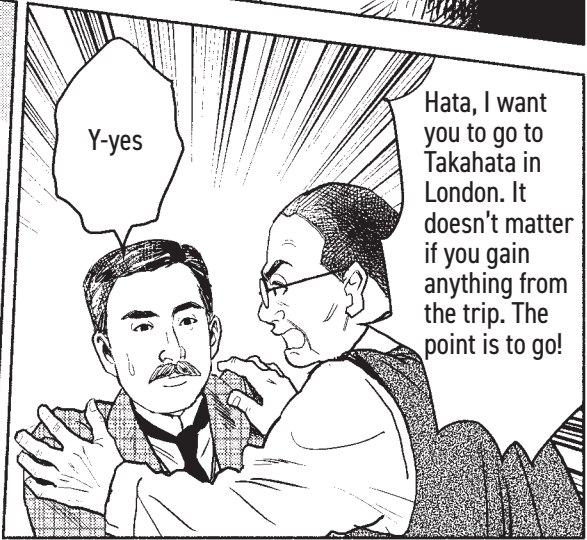


Hmmm...  
I've got it.

However,  
their  
research  
reached a  
standstill.

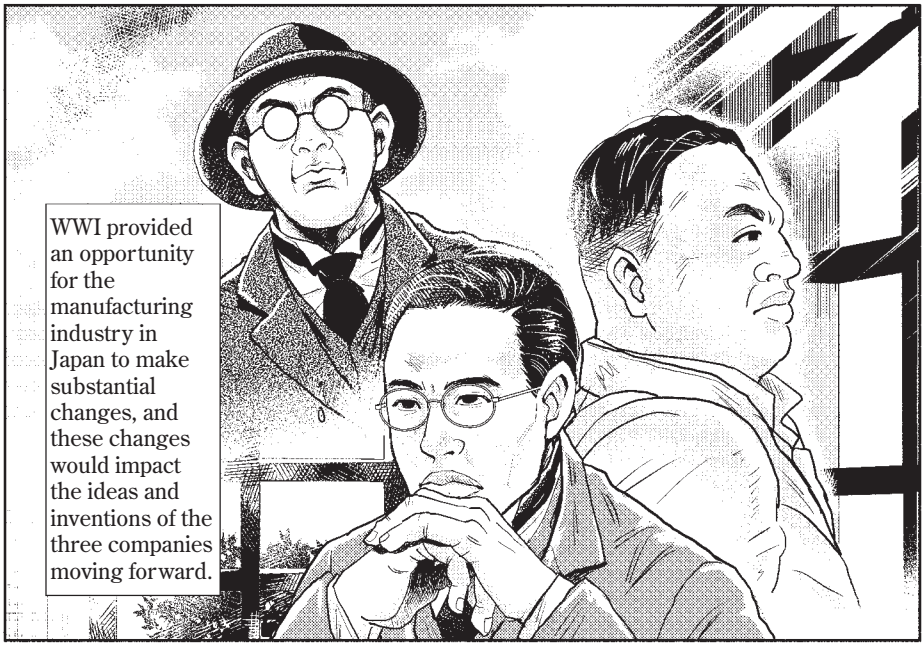


In this manner,  
Hata set off  
for London  
with the fate  
of Japan's  
artificial  
silk on his  
shoulders.



Y-yes

Hata, I want  
you to go to  
Takahata in  
London. It  
doesn't matter  
if you gain  
anything from  
the trip. The  
point is to go!



WWI provided  
an opportunity  
for the  
manufacturing  
industry in  
Japan to make  
substantial  
changes, and  
these changes  
would impact  
the ideas and  
inventions of  
the three  
companies  
moving forward.