

I. Dynasty 236

Chapter 236: Saltpeter and Lead Ore

Inside the academy, everyone turned to look at Xiao Ming, their eyes full of anticipation—including Luo Xin.

At present, the cannons in Qingzhou were smoothbore, meaning they were direct-fire weapons. In ancient times, firearms were essentially miniaturized versions of cannons, and because of this, the “three-point alignment” principle also applied to them.

However, this principle wasn’t something that could be implemented just by casually installing a front sight and rear sight. Different firearms required different configurations for these sights, all of which needed to be calibrated and tested—after all, the power of each cannon and the weight of the cannonball varied.

Therefore, his cannons would also need to be tested in order to gather data before precision sights could be installed.

“This all comes down to the principle of parabolic motion. When a cannonball is fired, it’s affected by gravity,” Xiao Ming explained.

As soon as he spoke, the entire classroom took on a puzzled expression.

Seeing so many confused faces, Xiao Ming suddenly felt a bit worn out. This was precisely why he had established this academy. It wasn’t something that Luo Xin and the others could understand in just a day or two.

First, he had to teach them addition, subtraction, multiplication, and division. Then he would move on to basic physics. If he could get them to a level comparable to second-year middle school physics, that would be enough. Based on his estimate, even with the advantages of his technological crystal, it would still take nearly a month for Luo Xin and the others to grasp the concepts of impact point calculation and complete the sight calibration.

Of course, he wasn't planning on selling any cannons equipped with precision sights. Those would be reserved for his own use. Once sights were installed, it would be a technological leap forward.

In a battle between armies, the advantage of such cannons would be immediately apparent.

"Your Highness, I don't understand a word of what you just said," Luo Xin admitted, clearly frustrated. As a military officer, all this theoretical knowledge gave him a headache.

"You'll understand once you've studied it," Xiao Ming replied without looking at him. He had no intention of explaining the spherical-heaven, square-earth theory to Luo Xin—after all, the man operated on land and had little use for it. But he would explain it to Yue Yun. That boy was teachable and far better than Luo Xin.

He then began teaching from the very basics of mathematics, writing the Arabic numerals on the blackboard. In the future, Yue Yun would also need to do calculations while navigating at sea, so he too had to learn this material.

Xiao Ming spent the rest of the day in the academy, starting with simple Arabic numerals and single-digit arithmetic, then moving on to more complex calculations.

Since all the students were adults and had strong motivation to learn, the lessons that afternoon were quite effective. Thanks to the technological crystal, they remembered most of the material.

By evening, Xiao Ming instructed Lu Tong to arrange food and lodging for Yue Yun and the others. He also told Luo Xin to attend the lectures every afternoon before finally returning to the Prince's Manor.

By now, the sky had dimmed. Just as he was about to head inside, he noticed someone hurrying toward him from the entrance of the Bo Wen Academy.

"Da Fu!" Xiao Ming called out excitedly as he recognized the man.

It was none other than Qian Dafu. As soon as he saw Xiao Ming, he exclaimed, "Your Highness, we've finally found a saltpeter deposit—and we even discovered lead ore!"

"What? Are you serious?" Xiao Ming was overjoyed.

"Yes, Your Highness! We finally found it." Qian Dafu, who had once been a chubby man, was now tanned and skinny, his face alight with excitement.

Xiao Ming was equally thrilled. "That's fantastic, Da Fu. You've made a great contribution."

"As long as I didn't delay Your Highness's plans, this old servant is satisfied. As for any reward, I truly don't care," Qian Dafu said with a grin.

Xiao Ming felt a wave of emotion. Qian Dafu was someone he trusted completely, which was why he had entrusted him with the critical task of prospecting.

Right now, what he lacked most were resources.

“Let’s talk more back at the manor. I’ll have the kitchen prepare you a grand feast,” Xiao Ming said with a big laugh.

Back at the manor, Xiao Ming had the kitchen begin preparing food while he and Qian Dafu headed to the main hall to talk about the saltpeter mine.

“Your Highness, that mine was really hard to find. We spent an entire month searching the area you described and came up empty. Do you know how we eventually stumbled upon it?” Qian Dafu said.

Xiao Ming shook his head.

“Well, we were too far from the nearest village to return, and we ran out of food. A few soldiers decided to go hunting in the mountains. While chasing a rabbit, it suddenly darted into a cave deep in the forest. The soldiers followed it and found the cave was full of saltpeter!” Qian Dafu said, eyes gleaming.

Though Qian Dafu made it sound simple, Xiao Ming could easily imagine the hardships of such a search.

Now that he had access to a saltpeter mine, neither the Prince of Shu nor the imperial court could use that as leverage against him.

“Seems like I owe that rabbit a thank-you,” Xiao Ming said with a grin. “Where’s the lead ore located?”

Qian Dafu took a sip of water before replying, “The lead ore is a bit farther from Qingzhou—near Yizhou.”

Yizhou was about two hundred li from Qingzhou, which was indeed a bit of a distance. “Far is better than nothing. But still no luck with the tungsten ore?”

Qian Dafu shook his head regretfully. “No trace of tungsten yet. But Your Highness, why are you so determined to find tungsten ore?”

“Because when tungsten is smelted with wrought iron, it makes the material far stronger. If I get my hands on tungsten, I can try producing tungsten alloy. Then I’ll finally have durable cutting tools for the hand-powered lathes. At that point, I’ll be able to manufacture a truly miraculous machine,” Xiao Ming said mysteriously—he was, of course, referring to the steam engine.

Qingzhou’s population was too small. Once the steam engine was developed, he could use mechanical power to make up for the lack of manpower.

Even more importantly, it would massively boost the steel output of the Ironworks.

Qian Dafu seemed to half-understand, half-not, but smiled anyway. “In that case, this old servant will prioritize the search for tungsten ore next.”

With the saltpeter mine solving the gunpowder problem and the lead ore handling future needs for cannonballs and bullets, Xiao Ming felt a great weight lifted from his heart. Now, he could begin preparing for the next technological breakthrough.

That breakthrough would come from unlocking the full potential of the lathe.

“No rush. Take a break before heading out again. I don’t want you working yourself to death,” Xiao Ming said.

They chatted a while longer until Lülao entered and said, “Your Highness, dinner is ready.”

“Come on, let’s eat. I had the chef prepare your favorite—smoked pig’s trotters,” Xiao Ming said with a laugh.

At the mention of that dish, Qian Dafu instantly lit up. “Your Highness, that’s exactly what I was hoping for! I don’t care how tired I am—if I get to eat smoked pig’s trotters, it’s all worth it!”

Xiao Ming burst out laughing at his words, and even Lülao covered her mouth and chuckled. Since their return to Qingzhou, the young maid had slowly recovered her cheerfulness.

Truth be told, Xiao Ming also had a fondness for smoked pig's trotters. It wasn't a dish that existed in the Great Yu Empire, so he had personally taught the chefs how to make it. Ever since Qian Dafu had his first taste, he'd been addicted—his mouth would water just at the sight of it.