

I. Dynasty 90

Chapter 90: How Glass is Made

“Your Highness, this is the tube used for blowing glass.”

While the materials were being heated, Chen Qi handed Xiao Ming a ceramic tube.

Once the glass liquid was formed, if one wanted to shape the glass, blowing would be required.

In fact, this was the most critical part of glass production. Because the temperature of the glass liquid was so high, and Xiao Ming didn’t have heat-resistant alloy tubes, he had to use a clay-fired ceramic tube. After all, he couldn’t even produce a seamless steel tube at this stage.

On either side of the regenerator, craftsmen took turns operating the bellows, blowing the heat from the coal in the regenerator into the furnace. After waiting for an hour, Xiao Ming instructed the craftsmen to open the furnace lid.

Instantly, a wave of heat surged out of the furnace, causing the craftsman to jump back in alarm. Once he regained his composure, he slowly approached the furnace and saw the red, molten liquid inside.

He said, “Your Highness, the materials inside have melted.”

Xiao Ming stepped forward and saw a lava-like liquid—this was the glass liquid.

“Hand me the blowpipe,” Xiao Ming said to Chen Qi.

While Xiao Ming could teach the theory, practical skills had to be honed through practice. No one could become a master glassblower overnight.

The blowpipe in Chen Qi’s hand was about 1.5 meters long, the standard length for industrial blowpipes.

Taking the blowpipe, Xiao Ming dipped it into the molten glass and quickly rolled the end of the glass liquid on a rolling board to ensure even distribution.

At the same time, he blew a puff of air into the pipe and quickly sealed it with his hand. A bubble soon formed in the glass liquid.

Next, he repeatedly softened the glass in the furnace, coated it with more glass liquid, and finally placed it into a mold.

While blowing and rolling, the glass liquid quickly filled the mold.

After cooling, a somewhat crude round-bottomed glass bottle emerged. Xiao Ming sighed—he was all theory and no skill.

When he looked up, embarrassed, he saw everyone in the room staring at the glass bottle in awe.

Chen Qi murmured, “Heavens, why is this bottle so beautiful?”

The other craftsmen also gasped in amazement, their expressions toward Xiao Ming now filled with admiration. This Prince Qi seemed capable of anything.

“See? This is the art of glassblowing. Of course, glassblowing is a profound skill. You’ll need to practice the methods I’ve taught you to produce various glassware. Go ahead,” Xiao Ming said, shamelessly brushing off his own lack of skill.

In the courtyard of the Machinery Department, there were fifty craftsmen, all selected from the slaves. Xiao Ming had taught each of them how to blow a specific type of glassware.

Hearing Xiao Ming’s words, Chen Qi was the first to pick up a blowpipe and head to the furnace. The other craftsmen followed closely behind. To them, glass seemed far more impressive than soap, perfume, or alcohol.

Xiao Ming didn’t leave immediately but stayed to guide the craftsmen in their glassblowing techniques. By the end of the day, the molten glass in the furnace was gone, replaced by a pile of failed glass products.

Of course, this failure was relative to modern standards. In reality, these glass products were usable—and even sellable. Xiao Ming planned to sell them to merchants.

Failure on the first attempt was normal. Xiao Ming didn't expect the craftsmen to master glassblowing overnight. With practice, they would improve. The most important thing was that the glass industry had taken its first step. With glass, Xiao Ming could accomplish many things and earn a lot of silver.

After a busy day, Xiao Ming took his handmade glass bottle back to the palace.

Zihuan and Luluo had just returned from running errands. When Luluo saw the bottle in Xiao Ming's hand, she exclaimed, "Your Highness, what is this? It's so beautiful!"

Zihuan also leaned in, her eyes sparkling. Girls had no resistance to beautiful things.

"This is called glass," Xiao Ming said with a smile. His failed creation seemed quite popular.

"Glass? Something this beautiful must cost thousands of taels of silver," Zihuan said. Since taking charge of the palace's finances, she had become very sensitive to spending.

"More like tens of thousands. I've never seen anything like this. Is it made of jade?" Luluo asked, puzzled.

Xiao Ming was pleased with their reactions. In the 17th century, colonizers had traded small glass beads for vast tracts of land from Native Americans, showing how valuable glass was to those who had never seen it before.

“No, this glass wasn’t bought, nor is it made of jade. It was produced by the Machinery Department,” Xiao Ming revealed, enjoying the look of surprise on Zihuan and Luluo’s faces.

“Produced by the Machinery Department?” Luluo’s eyes darted around. “Your Highness, can you give this glass to me? I’ll skip the clay pot chicken.”

“Sure, come over tonight, and I’ll check if you’ve grown taller,” Xiao Ming said with a mischievous grin.

Zihuan and Luluo blushed, shooting Xiao Ming a reproachful glance before heading into the palace.

Xiao Ming followed behind, his playful demeanor a small escape from the monotony of daily life.

After dinner and some playful banter with Zihuan and Luluo, Xiao Ming returned to his chambers to ponder how to maximize the profits from glass.

First, the bottles for perfume and “Drunken Qingzhou” could be replaced. Naturally, with upgraded packaging, a line of high-end perfumes and wines would emerge.

However, the contents of the bottles would remain largely unchanged. The added cost would come from the packaging. Xiao Ming was confident that the elite would be willing to pay for it.

Although the glass industry was just starting, the knowledge Xiao Ming brought would allow it to avoid groping in the dark and instead advance rapidly on a clear path.

As Xiao Ming had anticipated, after about ten days of practice, the craftsmen were able to produce passable glassware.

While not perfect, they met his basic requirements.

During this time, many merchants in Qingzhou City had been trying to find out what Xiao Ming was up to. The Wang, Qin, Sun, and Wei families were especially persistent.

To this end, the four families had even called back Wang Shijie and Qin Mu, who were in charge of their external businesses.

“Your Highness, stop keeping us in suspense. We’re dying of curiosity,” Wang Shijie had been hovering around Xiao Ming for the past two days.

Qin Mu stood nearby. Although he and Wang Shijie didn’t get along, they were united in this matter.

“Why the rush? Tomorrow, I’ll be exhibiting this mysterious item at the East Market. You’ll see it then,” Xiao Ming said.

“Can’t you let us take a peek first?” Wang Shijie pressed.

Wang Shijie no longer dared to address Xiao Ming as a brother. The current Prince Qi was no longer someone who could be appeased with a few silver notes.

He was now a feudal lord with life-and-death authority over six prefectures. This change had happened gradually but unmistakably.

If the Wang family had once looked down on Prince Qi, they now regarded him with a hint of wariness.