Civilization 228

Chapter 228: The Development of Technology (Continued)_2

With that, Malatel used the Obsidian Club to chop and slash, but the Rattan Armor remained without a scratch. He then cautiously hacked with a Bronze Axe, leaving only slight marks on the Rattan Armor. Finally, he stabbed with a Copper Spear, the tip went through some of the natural gaps in the Rattan Armor without causing any damage to the armor itself.

Xiulote approached for a closer look and saw the Rattan Armor was tightly woven. The old vines were dark yellow with a hint of brown, and the natural gaps between the vines were only the size of rice grains. The skilled movements of the Master Craftsman generated a breeze, and a faint smell of fish oil met the face, evidently long-soaked.

The youth watched for a moment and then asked with keen suspicion.

"Malatel, why didn’t you chop down with full strength with the Bronze Axe? Also, how does this type of armor fare against arrows?"

Embarrassed, the Master Craftsman smiled, pondered for a moment, and then chose to explain truthfully.

"Your Highness, this Rattan Armor is different from other armors; its defense relies entirely on the material of the whole old vine. Once it is chopped through with great force, the Rattan Armor is almost impossible to repair. We don’t have that much old vine in stock, and new vines require a year of oil treatment..."

Hearing this, Xiulote pondered for a moment, then sighed slightly.

The defensive power of Rattan Armor was between Iron Armor and Leather Armor; a good piece of Rattan Armor was not inferior to Iron Armor. However, throughout the history of the Celestial Empire, Rattan Armor only became popular among the southwestern borderlands and the Naval Forces. It was eventually supplanted by Paper Armor and Cloth Armor, obviously having some irremediable flaws.

In actual application, the most critical shortcoming of Rattan Armor was not its vulnerability to fire, but its difficulty in repair. It was very common for armor to sustain damage during battle. After a fight, Stab Armor and Scale Armor needed to replace metal plates, Chain Mail to mend the iron rings, Paper Armor and Cloth Armor to refill materials, but Rattan Armor could not be repaired. Its defense relied solely on the material quality of the old vine; once broken, it can only be remade.

Furthermore, crafting Rattan Armor was very time-consuming. Green Vines had to soak in water for half a month, dry for several days, and be soaked in oil for a year. After being woven into armor, the surface needed to be hardened, consuming a great deal of labor. Additionally, the sturdiness of Rattan Armor was directly proportional to the age of the Green Vine; fresh vines were brittle and easy to break, while old vines were tough and wear-resistant, but the raw materials were hard to come by.

Besides, Rattan Armor had natural openings, making it very vulnerable to arrows. The tough old vine was not easily bent, so most Rattan Armor could not incorporate movable joints. Wearing it was like donning an oversized vest, which gave it an ancient look.

Seeing His Highness’s face growing grimmer, Malatel’s heart tightened, and he quickly stepped forward to make amends.

"Your Highness, the Alliance has long had many experiences in using Green Vine. In my opinion, it is very suitable for making shields and helmets."

As he spoke, the Master Craftsman took a helmet woven from old vine and respectfully handed it to His Highness.

Xiulote accepted the Rattan Helmet, touching its dark surface and feeling its toughness. He tested it several times with a Bronze Axe, and it indeed proved to be unusually sturdy. Then, the youth tried the Rattan Helmet on, and it fit him just right. This type of helmet was extremely lightweight, much more comfortable than the animal-shaped Wooden Helmet, and its ventilated pores allowed effective airflow and heat dissipation.

Xiulote remembered the Wooden Helmet he wore last time he went to war, how he sweated like rain in the heat and how suffocating it was. Feeling the comfort of the Rattan Helmet, he slowly nodded his approval.

Malatel gave a small smile and then demonstrated the defense of the Rattan Shield once more to His Highness.

As an expendable item in battle, Rattan Shields could be woven from readily available fresh vines. As a shield, the natural gaps of the Rattan Shield were no longer a disadvantage.

The Master Craftsman began with a vigorous stab using the Copper Spear. The Copper Spear pierced through the Rattan Shield but became stuck, unable to be pulled out.

"Under these circumstances, the opposing samurai can only abandon their weapons, while our samurai discard their shields."

With that, Malatel chuckled. Then, he fired arrows at the rattan shield, and the arrows were absorbed into the crevices of the shield, their kinetic energy absorbed as well.

Seeing this, the youth nodded slightly. Compared to rattan armor, rattan shields were indeed more cost-effective and practical. The buffering force of this kind of rattan shield could also effectively defend against primitive firearms; no wonder it became widely popular during the Ming and Qing dynasties, with one in the hand of every regular soldier.

Xiulote thought for a moment and then gave his orders again, with a serious tone.

"Malatel, in that case, we'll set aside rattan armor for now. Compile the manufacturing methods of both the rattan helmet and the rattan shield and recommend someone to take charge. Next, I too will equip the new army on a large scale. Rattan helmets don't all have to use old rattan; similar to rattan shields, prioritize cost-effectiveness while maintaining a certain level of defense!"

The master craftsman once again accepted the command with a smile. This time, it was time to consider promoting the obedient second disciple.

The youth pondered in his heart, summing up his experience in choosing military equipment.

Just as the power of a long-range weapon is the product of its draw weight and draw distance. The power of military equipment is also the product of the power of a single piece of equipment and the total number of equipment. And numerical superiority is the most important decisive factor in the selection of military equipment!

In 1441, the price of a full set of Milanese plate armor was at least 72 Rivellon silver coins, already half the price from two hundred years ago. And the maintenance cost of a set of plate armor also required at least a dozen silver coins each year. Such expensive equipment could only be afforded in the long term by nobility owning more than two hundred acres of land.

Compared to the costly plate armor, the standard leather armor of the same period was only 1-2 silver coins, and since it didn't have to worry about rust, the maintenance costs were extremely low.

For the same cost, a knight in plate armor leading fifty lightly armored horsemen in cloth would face the same number of enemies with the same martial arts skills in leather armor; the result of the melee would be the knight facing dozens of foes alone. Then, after losing his horse and exhausting his stamina, he would be overwhelmed by numerous enemies and stabbed to death with a dagger.

In the complexity of actual combat, such hypothetical conditions don't have much significance and only serve to illustrate a point: A true commander must not place supreme value in the quality of the equipment, thereby overlooking the quantity of the equipment.

For the Empire, the strength of its army is a contest of national power. Behind every legion is the massive manpower and material resources that support it. The quantity of a legion's equipment will be decided by both manufacturing and maintenance costs. Manufacturing cost determines the scale of production, and maintenance cost will continuously deplete the empire's finances, with both simultaneously consuming national strength. Without a powerful empire and millions of people and craftsmen behind the legions, a vast military system cannot be sustained.

This is the reason why cloth iron armor replaced studded armor and scale armor: cheaper to make and easier to maintain. The popularity of paper armor and cotton armor is also due to this. The army of the Celestial Empire numbers in the hundreds of thousands, something which the nations of Europe cannot match. Every reduction in cost greatly alleviates the empire's financial pressure, and rulers naturally make choices accordingly.

At this point, Xiulote already had a comprehensive equipment plan for the upcoming new army.

These elite militia will wield copper spears, rattan shields, or longbows, wear rattan helmets, and be clad in paper armor with cloth surfaces. Their defensive equipment will be almost on par with that of ordinary samurai, while both the cost of assembly and routine maintenance will be considerably reduced. With the aid of new weapons and tactics, the elite militia will truly step onto the historical stage, using their vast numbers to change the course of wars and even the structure of society as a whole.

In the foreseeable future, amidst unceasing wars, a new class will rise!

His thoughts soaring, Xiulote looked towards the distance with a sigh. In the sky, flocks of birds from the north were migrating south to spend the warm winter here. At the highest point, an eagle spread its wings, soaring above the vast land. Below the eagle was a flock of geese in flight, and countless flapping birds. They flew in great numbers, obscuring the sky, crossing mountains and the Great Lake, flying over the entire world!